

[0158] It is understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested to persons skilled in the art and are to be included within the spirit and purview of this application and scope of the appended claims. All publications, patents, and patent applications cited herein are hereby incorporated by reference in their entirety for all purposes.

What is claimed is:

1. A system for improved drainage from a bladder in a patient, said system comprising:

a fluid collection apparatus;

a drainage receptacle; and

a connecting tube comprising a means for reducing or eliminating airlocks in said connecting tube and thereby providing sufficiently low backpressure such that a patient having a urinary bladder drained with said system maintains an average residual bladder urine volume of less than about 50 cubic centimeters over a period of at least four hours after initial drainage without manipulation of components of said system.

2. The system of claim 1, wherein said means provides sufficiently low backpressure such that a patient having a urinary bladder drained with said system maintains an average residual bladder urine volume of less than about 25 cubic centimeters over a period of at least eight hours after initial drainage without manipulation of components of said system.

3. The system of claim 1, wherein said collection apparatus comprises a Foley catheter.

4. The system of claim 1, wherein said drainage receptacle comprises a urine collection bag.

5. The system of claim 1, wherein said drainage receptacle comprises a vented urine collection bag.

6. The system of claim 1, wherein said means for reducing or eliminating airlocks comprises a means for producing a downward spiral shape in said connecting tube.

7. The system of claim 6, wherein said means for reducing or eliminating airlocks comprises an external semi-rigid coil through which said connecting tube is threaded.

8. The system of claim 6, wherein said means for reducing or eliminating airlocks comprises an external semi-rigid coil to which said connecting tube is attached.

9. The system of claim 6, wherein said means for reducing or eliminating airlocks comprises a semi-rigid coil formed from all or a part of said connecting tube.

10. The system of claim 1, wherein said means for reducing or eliminating airlocks comprises a tensioner attached to said connecting tube.

11. The system of claim 10, wherein said tensioner comprises a spring or elastic strap attached to said connecting tube.

12. The system of claim 11, wherein said tensioner is removably attached to said connecting tube.

13. The system of claim 11, wherein said tensioner comprises a clip for attachment to bedding, a bedside, or an iv stand.

14. The system of claim 1, wherein said means for reducing or eliminating airlocks comprises an elastic or elasticized bellows tubing.

15. The system of claim 1, wherein said means for reducing or eliminating airlocks comprises a form for wrapping excess collection tubing.

16. The system of claim 15, wherein said form holds excess collection tubing in a downward spiral shape.

17. The system of claim 1, wherein said means for reducing or eliminating airlocks comprises a tubing auto-winder.

18. A medical drainage device or system comprising a connecting tube, said connecting tube comprising a means for reducing or eliminating airlocks in said connecting tube and thereby providing sufficiently low backpressure such that when a patient is equipped with said device or system to drain a bladder, said patient maintains an average residual bladder urine volume of less than about 50 cubic centimeters over a period of at least four hours after initial drainage without manipulation of components of said system.

19. The drainage device or system of claim 18, wherein said means for reducing or eliminating airlocks comprises a means for producing a downward spiral shape in said connecting tube.

20. The drainage device or system of claim 19, wherein said means for reducing or eliminating airlocks comprises an external semi-rigid coil through which said connecting tube is threaded.

21. The drainage device or system of claim 19, wherein said means for reducing or eliminating airlocks comprises an external semi-rigid coil to which said connecting tube is attached.

22. The drainage device or system of claim 19, wherein said means for reducing or eliminating airlocks comprises a semi-rigid coil formed from all or a part of said connecting tube.

23. The drainage device or system of claim 18, wherein said means for reducing or eliminating airlocks comprises a tensioner attached to said connecting tube.

24. The drainage device or system of claim 23, wherein said tensioner comprises a spring or elastic strap attached to said connecting tube.

25. The drainage device or system of claim 24, wherein said tensioner is removably attached to said connecting tube.

26. The drainage device or system of claim 24, wherein said tensioner comprises a clip for attachment to bedding, a bedside, or an iv stand.

27. The drainage device or system of claim 18, wherein said means for reducing or eliminating airlocks comprises an elastic or elasticized bellows tubing.

28. The drainage device or system of claim 18, wherein said means for reducing or eliminating airlocks comprises a form for wrapping excess collection tubing.

29. The drainage device or system of claim 28, wherein said form holds excess collection tubing in a downward spiral shape.

30. The drainage device or system of claim 19, wherein said device or system further comprises a drainage device selected from the group consisting of a urinary catheter, a chest tube, a mediastinal tube, and a nasogastric tube.

31. The drainage device or system of claim 19, wherein said device or system further comprises a urinary leg bag.

32. The drainage device or system of claim 31, wherein said device or system further comprises a urinary leg bag, said leg bag comprising a venting tube.

33. A urinary catheter comprising a connecting tube, wherein said connecting tube comprises a downward spiral shape.

34. A urinary leg bag comprising a connecting tube and a venting system, wherein said connecting tube comprises a downward spiral shape and said venting system comprises a venting tube.

35. A collecting tube for use in a medical drainage device, wherein said collecting tube comprises a means for reducing or eliminating airlocks in said tube.